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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,536	Applicant(s) CHO, JA YEON	
	Examiner MARTIN ROGERS	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6,8 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,8 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinichi et al. (Japanese Kokai JP8323845 already of record) in view of Farrell (USP 4038006).

In regards to claims 1 and 2, Shinichi discloses a method for manufacturing a PET ([0004]) container (Figure 14) comprising the steps of blow molding a preform in a cavity (Figure 12) that has a handle forming portion for compressing both sides of the bottle to form the handle section (Figure 12), conveying the preform by clamping its neck (Figure 12: 82), creating a hole in the compressed handle area ([0096]), and using a bonding apparatus for bonding a cut-off portion remaining in the handle section after cutting off the compressed portion of the handle section (Figure 17). In the invention of Shinichi, a bottle-shaped blow molding cavity with portions that penetrate an opening in the bottle is not disclosed.

Farrell suggests to one of ordinary skill in the art at the time of the invention that once an integral handle is formed into a container and sealed (Column 1, lines 27-30), it

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is possible to give it a desired shape (Column 5, lines 26-30) by blow molding the handled container in a mold with sections that contact each other through the handle aperture (Figure 5: 16). Therefore, one of ordinary skill in the art at the time of the invention would have found it obvious to use a mold with opposing protrusions which contact through the handle aperture in order to mold the handle portion of the finished container into a different shape. The molding cavity of Farrell is capable of the intended use of having a seam-embedding step performed while the bottle is held in the cavity.

Claims 2 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the previous combination of Shinichi et al. (Japanese Kokai JP8323845 already of record) and (USP 4038006). as applied to claims 1 and 22 above, and further in view of Hagano et al. (Pre-Grant Publication 2002/0125254) or Maruniak et al. (USP 3817390).

In regards to claims 2 and 24, Shinichi discloses that the unbonded flanges of the handle area are sealed by using ultrasonic welding of a prefabricated piece ([0099] and [0100]).

Hagano discloses that it was known in the art to injection mold around the seam of a blow molded container by compressing the cut-off portion and overmolding the edges with an injection resin ([0090]). One of ordinary skill in the art at the time of the invention would have realized that by injection molding the sealing member directly onto the container of Shinichi rather than prefabricating it and then welding it in place, the

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amount of equipment, the production time, and the need to store additional pre-made parts would be reduced.

Additionally, Maruniak also discloses that sealing flanges through insert injection molding around compressed flanges (Figure 3: 17) is well known and suggests to one of ordinary skill in the art that through the use of insert injection molding, an improved seal can be created with fusion of the flange to the injected resin (Column 3, lines 44-45). Therefore, one of ordinary skill in the art would have also found it obvious to seal the flanges of the above combination with the insert injection molding required by the claims for the benefit of achieving the improved seal disclosed by Maruniak.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the previous combination of Shinichi et al. (Japanese Kokai JP8323845 already of record) and (USP 4038006) as applied to claim 1 above, and further in view of Fischer et al. (USP 4123217).

In regards to claim 3, the previous combination does not disclose what type of apparatus is used to perform the cutting operation, suggesting to one of ordinary skill in the art that any well known apparatus for this purpose would be suitable.

Fischer discloses installing a heater at the end of a mold punch (Column 2, line 65) to create a handle opening in a container for the benefit of allowing a cooled blow mold to be used which creates a cleanly-formed handle region (Column 2, lines 66-68). Although Fischer is concerned with punching a handle into a parison that has already

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been heat bonded within the handle region, one of ordinary skill in the art at the time of the invention would have been motivated to apply the teachings of Fischer to the cutting step disclosed by Shinichi for the benefit of creating a clean shear in the handle area, preventing any stretching or deformation of the parison which might otherwise occur.

2. Claims 1, 2, 6, 11, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinichi et al. (Japanese Kokai JP8323845 already of record) in view of Uhlig (USP 3740181), Hagano et al. (Pre-Grant Publication 2002/0125254), Farrell (USP 4038006), Mojonnier et al. (USP 3366290), Scott et al. (Pre-Grant Publication 2004/0134171), Cox (USP 4291915) and optionally Maruniak et al. (USP 3817390), Wallace (USP 2936920) or Reil (USP 5191988).

In regards to claims 1, 6, 22, and 23 Shinichi discloses a method for manufacturing a PET ([0004]) container (Figure 14) comprising the steps of blow molding a preform in a cavity (Figure 12) that has a handle forming portion for compressing both sides of the bottle to form the handle section (Figure 12), conveying the preform by clamping its neck (Figure 12: 82), creating a hole in the compressed handle area ([0096]), and using a bonding apparatus for bonding a cut-off portion remaining in the handle section after cutting off the compressed portion of the handle section (Figure 17). In the invention of Shinichi, the apparatus used to form a hole in the handle area is not disclosed and the unbonded flanges of the handle area are sealed by using ultrasonic welding of a prefabricated piece ([0099] and [0100]).

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Uhlig discloses that when blow molding a handled container, it is beneficial to have an intermediate blowing step in which the parison is blow molded into a cavity that creates a shape which allows the handle section to be compressed (Figure 12) for the benefit of creating a desirable amount of biaxial stretching in the handled container (Column 1, lines 45-49). Uhlig further discloses that it was well known in the art at the time of the invention to use a mold punch (Figure 17) to remove the compressed portion of a container handle.

Hagano discloses that it was known in the art to injection mold around the seam of a blow molded container by compressing the cut-off portion and overmolding the edges with an injection resin ([0090]). One of ordinary skill in the art at the time of the invention would have realized that by injection molding the sealing member directly onto the container of Shinichi rather than prefabricating it and then welding it in place, the amount of equipment, the production time, and the need to store additional pre-made parts would be reduced.

Additionally, Maruniak also discloses that sealing flanges through insert injection molding around compressed flanges (Figure 3: 17) is well known and suggests to one of ordinary skill in the art that through the use of insert injection molding, an improved seal can be created with fusion of the flange to the injected resin (Column 3, lines 44-45). Therefore, one of ordinary skill in the art would have also found it obvious to seal the flanges of the above combination with the insert injection molding required by the claims for the benefit of achieving the improved seal disclosed by Maruniak.

Therefore, in order to create a biaxially stretched container while saving on equipment costs and processing time, one of ordinary skill in the art would have found it obvious to use the preliminary blow molding step taught by Uhlig to create the container disclosed by Shinichi, cut the compressed portion of the container taught by Shinichi with the punch disclosed by Uhlig, and then bond the cut-off portions with the injection mold taught by Hagano or Maruniak.

This combination does not disclose that the handle forming portion of a third blow mold be configured to penetrate the body of the bottle in a handle forming area.

Farrell suggests to one of ordinary skill in the art at the time of the invention that once an integral handle is formed into a container and sealed (Column 1, lines 27-30), it is possible to give it a desired shape (Column 5, lines 26-30) by blow molding the handled container in a mold with sections that contact each other through the handle aperture (Figure 5: 16). Therefore, one of ordinary skill in the art at the time of the invention would have found it obvious to use a mold with opposing protrusions which contact through the handle aperture in order to mold the handle portion of the finished container into a different shape. The combination of references does not disclose that the final shaping of the container embed the cut-off portion remaining in the handle section.

Mojonnier discloses that a bonded flange can cause discomfort in the handle region of a container and that the comfort can be improved by bending the flange (Column 3, lines 41-45), however there still remains a possibility that the hand of a user will come in contact with the protrusion (Figure 4).

Scott discloses that protrusions in a gripping area can cause discomfort to a gripper's hand and that the comfort can be improved from recessing the protrusion out of contact with the hand ([0254]).

Cox provides further evidence that it is known to improve the comfort of a surface by recessing uncomfortable elements so that they do not project from a contact surface (Column 2, lines 23-25). Therefore, in order to further improve the comfort of the handle area, one of ordinary skill would have found it obvious to form a recess during the handle-shaping step of the above combination such that the protruding bonding flange does not project from the gripping surface of the handle (as disclosed by Scott or Cox), therefore improving the comfort of the handle.

Wallace and Reil disclose that there is a reasonable expectation of success for recessing the bonding seam of a container so that it does not affect the exterior surface (Wallace Figure 4) (Reil Figure 8).

In regards to claims 2 and 24, Hagano further discloses an insert inject mold having a compressing member for compressing both sides of an the cutoff portion (Figure 9: 67). Maruniak also discloses that the flanges be compressed during injection molding (Figure 3: 17).

In regards to claim 11, Hagano further discloses that use of an insert injection mold (Figure 9). Marunkai also further discloses the use of an insert injection mold (Figure 3: 25).

In regards to claim 25, Hagano further discloses an insert injection molding process in which an intermediate portion of the seam is compressed and then bonded with injection molding (Figure 9). Maruniak also discloses an insert injection molding process in which an intermediate portion of the seam is compressed and then bonded with injection molding (Figure 3).

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the previous combination of Shinichi et al. (Japanese Kokai JP8323845 already of record) in view of Uhlig (USP 3740181), Hagano et al. (Pre-Grant Publication 2002/0125254), Farrell (USP 4038006), Mojonier et al. (USP 3366290), Scott et al. (Pre-Grant Publication 2004/0134171), Cox (USP 4291915), Maruniak et al. (USP 3817390), Wallace (USP 2936920) and Reil (USP 5191988) as applied to claims 1 and 6 above, and further in view of Fischer et al. (USP 4123217).

In regards to claim 3, the previous combination does not disclose that the mold punch has a heater installed on an end of the mold punch.

Fischer discloses installing a heater at the end of the mold punch (Column 2, line 65) for the benefit of allowing a cooled blow mold to be used which creates a cleanly-formed handle region (Column 2, lines 66-68). Although Fischer is concerned with punching a handle into a parison that has already been heat bonded within the handle region, one of ordinary skill in the art at the time of the invention would have been

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motivated to apply the teachings of Fischer to the cutting step disclosed by Shinich for the benefit of creating a clean shear in the handle area, preventing any stretching or deformation of the parison which might otherwise occur.

In regards to claim 8, the previous combination does not teach that use of a mold punch having a heater installed on its end when the parison is thick.

Fischer discloses installing a heater at the end of the mold punch (Column 2, line 65) for the benefit of allowing a cooled blow mold to be used which creates a cleanly-formed handle region (Column 2, lines 66-68). Although Fischer is concerned with punching a handle into a parison that has already been heat bonded within the handle region, one of ordinary skill in the art at the time of the invention would have been motivated to apply the teachings of Fischer to the cutting step disclosed by Shinichi for the benefit of creating a clean shear in the handle area, preventing any stretching or deformation of the parison which might otherwise occur.

It is the examiner's position that it is obvious to use the heated press disclosed by Fischer for essentially any container thickness. The thickness of the container is a design choice that one of ordinary skill in the art at the time of the invention would have modified to adjust the aesthetics and structural strength of the container.

Response to Arguments

Applicant's arguments with respect to claims 1, 3, 6, 8, 11, and 22-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARTIN ROGERS whose telephone number is 571-270-7002. The examiner can normally be reached on Monday through Thursday, 7:30 to 5:00, and every other Friday, 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Martin Rogers/

/Justin R Fischer/
Primary Examiner, Art Unit 1747